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NORTHERN ESSEX LIBRARY

COMMONWEALTH OF MASSACHUSETTS

COMMUNITY COLLEGE



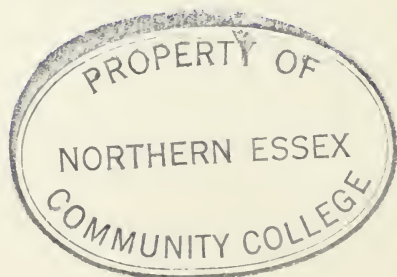
**CATALOGUE
1963-64**

HAVERHILL

MASSACHUSETTS

Established under the Massachusetts Board of Regional Community College, this College has no direct affiliation with the State Department of Education, the University of Massachusetts, the State Colleges, or other of the State supported educational facilities. There is, however, a high degree of correlation, contact, and cooperation between the community colleges and all other institutions of higher education, both public and private, in Massachusetts and New England. Northern Essex Community College is a member of the American Association of Junior Colleges and the New England Junior College Council.

The college will seek accreditation by the New England Association of Colleges and Secondary Schools and related and professional associations as soon as it is eligible.



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PERSONNEL STAFF

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MILO M. WILLIAMS	<i>Assistant to the Director</i>
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FACULTY

HAROLD BENTLEY, *Director of the College*

B.A., Penn College; B.D., Hartford Seminary; S.T.M., Boston University

EDWARD P. CHAMPY, Jr. Instructor, Electronics

B.S., Lowell Technical Institute

DONALD W. CHARLESWORTH Instructor, Accounting

B.B.A., Clark University; M.Ed., Worcester State College

HERBERT C. CROOK Assistant Professor, French, Music

A.B., A.M., Harvard University

J. ALPHEE DESJARDINS Assistant Professor, Physics

B.A., University of Colorado; M.Ed., Boston University;

M.S., Worcester Polytechnic Institute

JOHN L. FINNERAN Associate Professor, Biology, Chemistry

A.B., Ed.M., Harvard University

SEGUNDO C. GONZALEZ* Instructor, Spanish

B.S., B.A., Matanzas College, Cuba; Ph.D., Havana University, Cuba

CHARLES M. KENNEDY* Instructor, Graphics

A.E., B.B.A., Northeastern University

ROLAND G. KIMBALL Associate Professor, English

A.B., Gordon College; M.A., University of New Hampshire

NORMAN J. LANDRY Assistant Professor, Mathematics

B.S., State College at Bridgewater; Ed.M., State College at Salem;

M.A., Rutgers University

JOHN C. MAINER Instructor, English and Speech

B.A., Furman University; M.A., Emerson College

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RICHARD L. MESLE Instructor, History

A.A., Graceland Jr. College; B.A., University of California;

M.A., Fletcher School, Tufts University

ROBERT A. PAUL Instructor, Geography

B.S., Bryant College

KATHERINE H. PICKUL Instructor, Business

B.S., State College at Salem

NICHOLAS SARRIS Professor, Accounting, Business Law

B.S., University of New Hampshire; M.A., Fairfield University

PETER SIMOGLOU Assistant Professor, Library Science

A.B., Harvard University; M.S., Simmons College

JAMES F. SULLIVAN Professor, Electronics

B.S.E.E., Catholic University of America

JAMES W. THOMSON Associate Professor, English

B.S.Ed., Massachusetts School of Art; Ed.M., State Teachers College,

Fitchburg; Ed.D., Calvin Coolidge College

CLARENCE A. WOOD, *Dean* Professor, Psychology

A.B., University of Rochester; B.D., Andover-Newton College;

Ph.D., Boston University

* Part-time.

GENERAL INFORMATION

Northern Essex Community College is a co-educational public college for commuting students. It is located in the Bradford section of Haverhill.

The College has several purposes:

It provides high-quality, low-cost education for qualified high school graduates. Those who seek two years of college while residing at their homes may enter this college for the commuting student. This will save expense.

It offers general and university-parallel education in the liberal arts, leading to the degrees of Associate in Arts and in Engineering. The student may elect a program that goes no further than this degree, or he may aim to go on to a four-year institution for the baccalaureate degree.

It develops Associate Degree programs for those who wish two years of education leading to higher-level occupations. These programs will reflect the needs of business and industry in the Merrimack Valley region. The emphasis will be on developing highly trained men and women who will fill needed job-requirements of the community and the nation.

It counsels all students in the selection of college programs, the choice of vocations, and in the important task of facing the citizenship requirements of the community and the world.

Northern Essex Community College will develop special programs and courses of varying length and emphasis to meet the adult needs of the region. Those who seek cultural growth, academic achievement, or vocational improvement will progressively find the answer to their needs in this community college.

Late afternoon and evening programs will become available to people whose employment or other responsibilities prevent day attendance. Those who seek to know and to grow will find age no barrier to learning. Opportunity will be theirs according to ability, interest and effort.

This college seeks to become an educational and industrial development center for this region of the Commonwealth.

ENTRANCE REQUIREMENTS

All qualified students have the right to apply. They must prove graduation from high school or its equivalent. The Admissions Committee will select all students and will judge the applicant's ability to do college-level work and to benefit from attendance at Northern Essex Community College. This selection and judgment by the Committee is final.

Those who enter the Liberal Arts programs should have taken in high school four years of English, two years of a modern foreign language, three years of mathematics, and one year of science.

Business students should have enough college preparation to enable them to do college-level work in the Liberal Arts courses of their program requirements. This will be decided by the Admissions Committee. In special cases certain requirements may be waived, but only if the student has shown unusually high achievement and potential in his high school experience.

Students entering the Electronic Technology program should have taken algebra, geometry, trigonometry, and physics, and should show competence in English.

LIBERAL ARTS

The following programs are offered:

GENERAL PROGRAM IN LIBERAL ARTS. For those who seek higher education but who, as yet, have no well defined professional or vocational objective. This is an increasing need in higher education.

TRANSFER PROGRAM IN LIBERAL ARTS. This program may be taken for transfer purposes to four-year colleges. Students heading for teaching or other professions will enroll in this program.

Students in both general and transfer Liberal Arts programs will attend the same courses. The difference between the two programs is that the Transfer Liberal Arts curriculum consists almost entirely of required courses to meet high-level transfer needs, while the General Liberal Arts curriculum allows more electives for exploratory purposes. In most cases the General Liberal Arts program will carry out the function of what is inadequately described as a terminal course.

Both of these programs lead to an Associate degree in Arts.

BUSINESS ADMINISTRATION with three options:

Business Management

Accounting

Secretarial

The chief function of these three options will be to lead the student into business with a two-year development beyond the high school. In some cases the students will transfer to other colleges to seek the baccalaureate degree. Special counselling in the choice of subjects will help effect this.

In most cases the options will have what is described as a terminal objective with the aim of getting the student into the business world at the completion of two years in the college.

All Business Administration graduates will be awarded an Associate in Arts degree with the area of studies indicated.

Options

BUSINESS MANAGEMENT develops students who seek semi-professional positions where the supervising of people or the handling of goods is the vocational objective.

ACCOUNTING will develop those who prefer the mathematical and records handling aspects of business.

SECRETARIAL STUDIES will seek to develop technically competent and superior secretaries whose personalities as well as their skills will make them valuable in business.

ELECTRONIC TECHNOLOGY

This is basically a terminal curriculum leading to positions in the wide field of electronics typical of this geographical area. The subjects will be high-level college courses with enough content to make possible the next step in transfer, should the superior student seek that objective after having been engaged in technical work for a reasonable time. This program leads to the degree of Associate in Engineering.

ADMISSION REQUIREMENTS

Applicants for admission to the freshman class must have been graduated from an accredited secondary school or have been awarded a state equivalency diploma.

In addition to the above requirements, the Committee on Admissions considers the prospective student's character, his ability to do college work, and the strength of his determination to get a college education. Scholastic Aptitude Test scores are also required.

All secondary school graduates should have included in their secondary school programs four years of English. Those who plan to enter an engineering program should have passed at least three years of mathematics, and those who plan to enter a liberal arts curriculum should have passed two years of one modern foreign language.

Prospective students whose qualifications deviate from the above requirements may submit their applications for special consideration.

Admission with Advanced Standing. Applicants who have completed work at an accredited institution or college may transfer to Northern Essex Community College with advanced standing. The credit in the courses they have completed must have a minimum grade of C. At the discretion of the college, credit is given for those courses which are applicable to the curriculum in which the student enrolls. A student must complete his final year's work entirely within Northern Essex Community College.

ADMISSION

Inquiries, requests for application forms, and subsequent questions in regard to admission should be addressed to the Committee on Admissions, Northern Essex Community College.

The steps to admission are:

- (a) Obtain the application blank.
- (b) Fill out the application blank completely.
- (c) Return it, with the \$10 application fee, to the college.
- (d) Make check payable to Northern Essex Community College.
- (e) Ask your secondary school to forward to the college a transcript of your record complete with Scholastic Aptitude Test and other standard test scores. The applicant who has attended other colleges must similarly obtain a transcript of record from those colleges.

NO APPLICATION IS COMPLETE UNTIL ALL OF THE ABOVE ITEMS HAVE BEEN RECEIVED BY THE COLLEGE.

- (f) Await communication from the college setting up an appointment for interview with a member of the Committee on Admissions. (This will be forthcoming in about one month after receipt of the above items.)
- (g) Keep the appointment punctually.
- (h) Attend promptly to any further requirements resulting from this appointment.
- (i) Await the decision of the Committee in the form of a letter of admission or non-admission to the college.
- (j) Keep the college informed of any change in your address.

SCHOLASTIC STANDARDS

Marks, Quality Points, and Credits

All marking is done according to a letter system in which A represents excellent work; B, good; C, fair; D, merely passing; F, failure.

The equivalent quality points are as follows: A—4 grade points per credit; B—3; C—2; D—1; F—no points.

Marks of A, B, C, or D are passing marks. No credit is granted for a mark of F, which indicates a failed course. No student who has failed in a course has further opportunity to receive credit in the course except by repeating the work. A student who withdraws from a full-year course at the close of the first semester will receive credit for the work of the first semester if he had a passing grade.

The quality point indexes required to be in good academic standing are as follows:

Close of first semester of enrollment: a cumulative index of 1.5

Close of second semester of enrollment: a cumulative index of 1.75

Close of third semester of enrollment: a cumulative index of 1.9

Thereafter, and for graduation, a cumulative index of 2.0

The student will be placed on academic probation if his quality point average is between 1.00 and 1.50 the first semester and 1.50 and 1.75 at the close of the second semester.

Any student whose quality point average is below

1.00 at the close of the first semester

1.50 at the close of the second semester

1.75 at the close of the third semester

will automatically be dropped from the college rolls.

Adding or Dropping Courses

A student may not add or drop a course except by permission of the Dean of Students.

Courses may be changed only within the first two weeks, and

then only for an acceptable cause. During the first four weeks courses may be dropped without penalty.

The student who drops an individual course for any reason after the fourth week will receive a grade of "F" in the subject.

In unusual cases an exception might be made to this rule if the student drops a course for protracted illness or serious family problems. This will be possible only if the student is passing the course at the time it is dropped. In this case the mark will be "WP" (Withdrawn, passing).

Number of Credits each Semester

Full-Time Students must register for not fewer than 12 credits in any semester.

Part-Time Students. A student who registers for fewer than 12 credits is a part-time student and may not hold office.

Maximum Number of Credits. The maximum number of credits which a liberal arts student may carry shall be 18. This will be permitted only if he has earned in the previous semester a quality point index of 3.0 or above. No entering freshman may register for more than 16 credits.

Procedure for Withdrawal

All students withdrawing from the college for any reason must notify the Dean of Students on the proper forms.

PROBATION, SUSPENSION OR EXPULSION

Probation is defined as a condition under which a student's right to participate in organized college activities of an extra-curricular nature may be suspended. The college also reserves the right to advise both the student and his parents that he should reduce or limit severely any remunerative employment in which he may have been engaged.

A student who has been placed on probation, and who does not earn the required quality point index in the probationary semester may be required to withdraw, or to transfer to a program more in line with his achievement. If a student has been on probation during any one semester, and fails in the following semester to achieve the required quality point index for that semester, he may be asked to withdraw.

Suspension or expulsion may be incurred as a result of unsatisfactory conduct. No student who has been expelled shall receive an honorable dismissal.

Suspension from the college is the withdrawal of the right to attend classes. A suspended student may, after a designated period of time, request re-admission to classes. Expulsion from the college is also the withdrawal of the right to attend classes, but there is no provision for a request for re-admission.

Graduation—A student will be graduated in the June Commencement exercises upon fulfillment of the following four requirements:

1. Completion of 62 credit hours of work in any curriculum except Secretarial, which requires 66, and Electronic Technology which requires 72.
2. All of the prescribed courses must be completed with a passing grade.
3. Earning of quality points equal to twice the total number of credit hours of work attempted. (This is equivalent to a straight C academic average.)
4. Payment of all financial obligations.
5. Participation in the Commencement exercises.

STUDENT-COLLEGE RELATIONS

No student or group of students in connection with any publication, public performance or social activity, shall use any name or designation that implies a relationship with the college without the sanction of the Director of the College.

It is taken for granted that when a student is admitted to the college he has an earnest intellectual purpose and good habits of conduct; and this presumption in his favor continues unless, by neglect or by improper behavior, he removes it. If, however, any offense occurs, whether against good behavior or academic duty, the college authorities will take such action as seems to them merited in view of the circumstances of the particular case. Students who fail to make proper use of the opportunities provided for them by the Commonwealth must expect to have their privileges curtailed or withdrawn.

No student remains in good standing unless he meets his financial obligations to the college promptly. No student is permitted to register, nor to continue his registration, nor to be graduated, unless these obligations have been met.

TUITION AND OTHER COSTS

Application fee	\$ 10
Tuition per semester	
Full-time students	
Massachusetts residents	\$100
Non-residents	\$250
Part-time students, per semester hour	
(Fewer than 9 semester hours)	
Massachusetts residents	\$ 13
Non-residents	\$ 25
Commencement exercises fee,	
including cap and gown rental	\$ 12
Transcript of records	
No charge for the first transcript	
Additional transcripts, each	\$ 1

Student Activity fee \$ 25

Every student automatically becomes a member of the Student Government Association when he pays his student activity fee. This fee must be paid by every student in the college. The fees are used to promote activities which will be of benefit to the college at large.

Books and materials are likely to cost approximately \$10 to \$15 per course. Students are required to obtain basic texts for each course. All sales are for cash. Checks payable to the N.E.C.C. Bookstore will be accepted.

PAYMENT SCHEDULE

The application fee must accompany the application.

Tuition, first semester

Twenty-five dollars is due on the date specified in the letter of acceptance. The balance is due on the last Friday in August.

Second semester

The tuition charge is due on January 15.

Commencement Exercises fee

Due from all seniors on January 15.

Student Activity fee

Due on the date specified in letter of acceptance.

REFUNDS

Refunds of tuition will be made by the treasurer of the Commonwealth upon application submitted on the prescribed form. The application must be approved by the college. Refunds will be made on the following schedule:

Withdrawal during the first week	90%
Withdrawal during the second week	70%
Withdrawal during the third week	50%
Withdrawal after the third week	none

ONLY TUITION CHARGES ARE REFUNDABLE. ALL OTHER FEES ARE NON-REFUNDABLE.

ABSENCES

All students are expected to attend each meeting of each class for which enrolled. No student may be absent from class more than three times during a semester. The fourth unexcused absence will result in automatic suspension from the course with a grade of "F."

The college understands that a student may be absent from class in case of his own illness, or death in the immediate family.

Reinstatement to class is possible only on immediate written application to the Dean of Students, and then only when adequate reason, in the form of rare, unusual, and extreme circumstances can be provided,

and when, in the opinion of the college, the absences have not presented serious obstacles to academic success in the course.

The student must accept the responsibility for the fact that his failure to be present when a certain amount of course material is dealt with, has resulted in his being dropped from the course.

ADVISOR SYSTEM

Every student is assigned to an Advisor. He meets the Advisor at Registration, at the two Counseling Days in his Freshman Year, and throughout the year when he feels the need for information or guidance. The advisor system is part of the Counseling and Guidance program of the college, which is under the direction of the Dean of Students.

BOOKSTORE

The college operates its own bookstore. Books, writing materials and educational supplies are readily available at competitive prices.

DEAN'S LIST

Any student who attains a 3.0 quality point average in any given semester will be placed on the Dean's List. Those who, at the end of four semesters, have a 3.0 quality point average will be named as Honor Students at the commencement.

HONORS AND AWARDS

Annually, at an Honors Convivium in the Spring the Director of the College and the Advisory Board honor those students who have achieved scholastic excellence.

HOUSING

No housing facilities are provided by or supervised by the college.

LIBRARY

The college library, where the student carries forward many activities initiated and motivated in the classroom, reflects the particular needs of Northern Essex Community College students. Its acquisitions, carefully selected in consultation with the Faculty and Administration, consist of over 6,000 new volumes, 100 current periodicals, local and national newspapers, paper bound books, college catalogs, and art prints.

First-year students receive instruction in the major steps of approach to a research paper. Continuous informal instruction in the use of all the library's resources, the open-shelf arrangement for all materials, and a collection of standard indexes, through which the

students can perform their groundwork in research, contribute to implementing the library's resources toward maximum usefulness. New books are added annually as the budget permits.

The resources of the Haverhill Public Library are also accessible to the students of the college.

PARKING FACILITIES

Students must observe college and municipal parking regulations. College parking regulations will be discussed during orientation period.

PART-TIME EMPLOYMENT

Students are not encouraged to work in their freshman year at college. The amount of time required of the student to be in class, to prepare his assignments, and to commute while still tending to other personal needs leaves little time for gainful employment. Those who must work are advised to allocate their time carefully so as not to jeopardize their academic standing which is of great importance, particularly in the first year. Scholastic achievement and financial need are considered in offering occasional part-time work at the college.

PLACEMENT

The college will provide a placement assistance service for all graduates. Job clinics, employer interviews and related programs will be used to insure the best placement opportunity.

SCHOLARSHIPS

A few limited scholarship awards will be available to students qualified by evidence of need, scholastic ability, achievement, and promise of future usefulness to the community. Application should be made by letter addressed to the Scholarship Committee.

STUDENT ACTIVITIES

A Student Government is elected by the student body early in each college year and determines the policy for the conduct of student affairs and social life. It is charged with responsibility for good communications and cooperation between the students and the faculty and staff.

The college does not permit fraternities or sororities.

CURRICULA

LIBERAL ARTS PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Composition	3	English Composition	3
Mathematics	3	Mathematics	3
Biology	4	Biology	4
Foreign Language	3	Foreign Language	3
Social Science	3	Social Science	3
Director's Hour	0	Director's Hour	0
—	16	—	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Literature	3	English Literature	3
Chemistryor.....Physics	4	Chemistry or Physics	4
Foreign Language	3	Foreign Language	3
Social Science	3	Social Science	3
Elective	3	Elective	3
—	16	—	16

NOTE: The Social Sciences and Electives above include Geography, Government, History, Psychology, Sociology and Speech.

GENERAL LIBERAL ARTS PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Composition	3	English Composition	3
Mathematics	3	Mathematics	3
Foreign Language	3	Foreign Language	3
Social Science	3	Social Science	3
Elective	3	Elective	3
Director's Hour	0	Director's Hour	0
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15		15	

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Literature	3	English Literature	3
Science	4	Science	4
Foreign Language	3	Foreign Language	3
Social Science	3	Social Science	3
Elective	3	Elective	3
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16		16	

NOTE: The Social Sciences and electives above include Geography, Government, History, Psychology, Sociology and Speech.

BUSINESS ADMINISTRATION

BUSINESS MANAGEMENT PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:		Course:	
English Composition	Credit Hours 3	English Composition	Credit Hours 3
Introductory Accounting	4	Introductory Accounting	4
Economics 1	3	Economics 2	3
Business Mathematics	3	Speech	3
Introduction to Psychology	3	Business Organization	3
Director's Hour	0	Director's Hour	0
<hr/>	<hr/>	<hr/>	<hr/>
	16		16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:		Course:	
Business Law 1	Credit Hours 3	Business Law 2	Credit Hours 3
Principles of Marketing	3	Corporation Finance	3
Business Statistics	3	Principles of Management	3
Money and Banking	3	Advertising	3
Personnel Management	3	Elective	3
<hr/>	<hr/>	<hr/>	<hr/>
	15		15

BUSINESS ADMINISTRATION ACCOUNTING PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Composition	3	English Composition	3
Introductory Accounting	4	Introductory Accounting	4
Economics 1	3	Economics 2	3
Business Mathematics	3	Speech	3
Introduction to Psychology	3	Business Organization	3
Director's Hour	0	Director's Hour	0
	<hr/> 16		<hr/> 16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
Intermediate Accounting	3	Advanced Accounting	3
Cost Accounting	3	Cost Accounting	3
Business Law 1	3	Business Law 2	3
Business Statistics	3	Tax Accounting	3
Elective	3	Corporation Finance	3
	<hr/> 15		<hr/> 15

SECRETARIAL PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
English Composition	3	English Composition	3
Elementary Typewriting	3	Intermediate Typewriting	3
Introductory Shorthand 1	4	Introductory Shorthand 2	4
Business Mathematics	3	Speech	3
Economics 1	3	Elective	3
Director's Hour	0	Director's Hour	0
—	16	—	16

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
Introductory Accounting	4	Introductory Accounting	4
Intermediate Shorthand and Transcription	4	Advanced Shorthand and Transcription	4
Secretarial Procedures	3	Personal Secretarial Development	3
Office Machines	3	Elective	3
Elective	3	Elective	3
—	17	—	17

Those who have taken the advanced shorthand and transcription in the Freshman year may take the following:

Legal Stenography	1	Medical Stenography	1
Advanced Typewriting 1	2	Advanced Typewriting 2	2
		17	

ELECTRONIC TECHNOLOGY PROGRAM

FRESHMAN

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
Networks 1	4	Networks 2	4
Mathematics 7	4	Mathematics 8	4
Physics 1	4	Physics 2	4
Graphics 1	2	Graphics 2	2
English Composition	3	English Composition	3
Director's Hour	0	Director's Hour	0
—	17	—	17

SOPHOMORE

FIRST SEMESTER		SECOND SEMESTER	
Course:	Credit Hours	Course:	Credit Hours
Networks 3	3	Calculus 2	4
Electronics 1	5	Electronics 2	5
Physics 3	4	Fundamentals of Control Systems	4
Liberal Arts Elective	3	Fields & Waves	3
Calculus 1	4	Elective (non technology)	3
—	19	—	19

BUSINESS ADMINISTRATION COURSES

Accounting, Introductory

A continuous two-semester course, four credit hours per semester. This course involves a study of the principles and procedures of accounting in relation to the sole proprietorship, partnership, and corporation. Internal control concepts and standards, and management aspects are developed. Three class lectures and one two-hour laboratory period a week.

Accounting, Intermediate

A one-semester course. Three credit hours. Prerequisite: Introductory Accounting. Basic concepts of present day accounting, working capital items, noncurrent items, corporate capital, the modern balance sheet and the broadened concept of working capital, current performances versus the all inclusive income statement accounting for stock rights and financial accounting. Three hours a week.

Accounting, Advanced

A one-semester course. Three credit hours. Prerequisite: Intermediate Accounting. Emphasis on the fundamentals of valuation accounting. Paramount emphasis upon income, its interpretation and its role in making of intelligent decisions. Discussion of machines accounting. Three hours a week.

Accounting, Cost

A continuous two-semester course. Three credit hours per semester. Prerequisite: Introductory Accounting. Cost methods for manufacture, distribution, service operations. Cost controlling accounts and subsidiary records, cost of materials and labor, including inventory and payroll records. Overhead budgets, distribution of overhead to departments and products. Job order and standard cost procedure methods. Three hours a week.

Accounting, Tax

A one-semester course. Three credit hours. An introduction to the principles of tax accounting. Analysis of the tax structure of a sole proprietorship, partnership, joint venture and corporation, estates and trusts. A detailed study of federal income tax, annual reports, quarter reports, and sundry forms required in the business field. The organization of the Internal Revenue Service. Prerequisite: Intermediate Accounting. Three hours a week.

Advertising

A one-semester course. Three credit hours. An analysis of buying motives and the development of various advertising appeals. Planning, budgeting and testing of phases of the program and the several advertising media. Prerequisite: Economics 1. Three hours a week.

Business Law 1

A one-semester course. Three credit hours. The law of contracts, agency, and personal property. Three hours a week.

Business Law 2

A one-semester course. Three credit hours. The law of negotiable instruments, partnerships, corporations, and real property. Prerequisite: Business Law 1. Three hours a week.

Business Mathematics

A one-semester course. Three credit hours. The mathematics used in business financing. Arithmetic and algebraic expressions, including quadratics, structures, business application of per cent, interest and discounts, equations and business application. Three hours a week.

Business Organization

A one-semester course. Three credit hours. The functioning, form and financing of partnerships, single proprietorships, joint stock companies, business trusts, corporations, investment companies, and industrial combinations. Prerequisite: Economics 1 and 2. Three hours a week.

Business Statistics

A one-semester course. Three credit hours. Probability and statistical distribution applied to business management. Problems, business forecasting and time series analysis, statistical simplicity, quality control, forecasting techniques, and economic methods. Prerequisite: Business Mathematics. Three hours a week.

Corporation Finance

A one-semester course. Three credit hours. Forms of corporate organization, capital, capital stocks, rights of stockholders, stocks and bonds, problems of valuation, analysis of depreciation, obsolescence, contingencies, sinking funds, amortization, distribution of profit, government regulations. Prerequisite: Economics 1 and 2. Three hours a week.

Economics 1

A one-semester course. Three credit hours. Principles of Economics. Basic principles of the production, distribution, and exchange of economic goods and services, and of the allocation of income and revenue. Three hours a week.

Economics 2

A one-semester course. Three credit hours. Problems of the national economy. Current economic problems, the composition and pricing of national output, the distribution of income and competitive and collective bargaining. International and foreign economic planning. Three hours a week.

Principles of Marketing

A one-semester course. Three credit hours. An introduction to marketing with emphasis placed on the basic functions and the channels of distribution. The consumer, the market area, and the problems and policies of pricing the product. Three hours a week.

Money and Banking

A one-semester course. Three credit hours. Prerequisite: Economics 1 and 2. Nature and functions of money, evolution of monetary systems, current monetary standards, problems in importing countries. Credit instruments, bank regulations, Federal Reserve System, foreign exchange, price movements, credit systems during business cycles. Three hours a week.

Personnel Management

A one-semester course. Three credit hours. Principles and human relations problems involved in the administration of personnel. Topics include job analysis and specification; recruitment, selection and training, supervision of employees; job evaluation and salary and wage administration; labor relations. Three hours a week.

Principles of Management

A one-semester course. Three credit hours. Prerequisite: Business Organization. The principles of business organization and management. The problems include finance, office management, personnel, administration, sales, in both small and large businesses. The fundamentals of data processing systems are included. Three hours a week.

Retailing

A one-semester course. Three credit hours. Prerequisite: Principles of Marketing. Basic elements of retail merchandising. Types and organization of retail outlets. Buying, pricing, dollar and unit stock control, sales promotion, and expense budgets. Three hours a week.

Salesmanship and Sales Management

A one-semester course. Three credit hours. Prerequisite: Economics 1. Principles and problems of direct salesmanship together with management; problems and policies of controlling and directing the sales force; sales territories, budgets, and compensation. Three hours a week.

LIBERAL ARTS COURSES

Biology

A two-semester course. Four credit hours each semester. Life functions of both plants and animals. Heredity, evolution, and ecology are considered in presenting the major principles of modern biology. Three class hours and two laboratory hours a week.

College Algebra

A one-semester course. Three credit hours. An intensive review in depth of the algebra of equations with determinants; elementary theory of equations; the binomial theorem; sequences; inequalities and logarithms. Three hours a week.

Chemistry

A two-semester course. Four credit hours each semester. Introductory General and Inorganic Chemistry. The general principles involved in the interaction of chemical substances. The fundamental laws of chemical equilibrium, ionization, ionic equilibrium, oxidation, and reduction. Three class hours and two laboratory hours a week.

Economics 1

A one-semester course. Three credit hours. Principles of Economics. Basic principles of the production, distribution, and exchange of economic goods and services, and revenue. Three hours a week.

Economics 2

A one-semester course. Three credit hours. Problems of the national economy such as international and foreign economic problems, the composition and pricing of national output, the distribution of income and collective bargaining. Three hours a week.

English Composition

A two-semester course. Six credit hours. Designed to develop lucid, effective, written expression. Grammar, syntax, and punctuation are reviewed. Special techniques in expression coupled with the development of logical thinking will enable the student to organize, outline, and express his thoughts in written form at all levels of requirement. Three hours a week.

English Literature

A two-semester course. Six credit hours. A study of the major works of selected English essayists, poets, dramatists, and prose writers from historical and literary background will be directed through lectures; prescribed reading with special exercises in interpretation and criticism. Three hours a week.

English Composition and Literature are required of all Liberal Arts transfer students. English Composition is required of all students in the college.

Fine Arts

A one-semester course. Three credit hours. History of Fine Arts from Paleolithic Times to the Renaissance. Recognition of types and phases, adaption and use of color mediums. Study of perspective and forms. Three hours a week.

French 1

A two-semester course. Three credit hours each semester. French (for students who have not completed two years of secondary school French or the equivalent as determined by a standardized test). An introduction to the basic grammatical patterns of French. Speaking, reading, and writing in the French language. Three hours a week.

French 2

A two-semester course. Three credit hours each semester. Intermediate French (for students who have two or more years of secondary school French, and who achieve an accepted level in a standardized test, or who complete French 1 successfully at Northern Essex). A continued study of French 1 language skills, emphasizing the development of reading ability. Three hours a week.

Principles of Geography

A one-semester course. Three credit hours. A systematic study of the earth's physical and social patterns. Emphasis is placed on the factors which explain these patterns. Types and uses of maps, the earth as a planet, the atmosphere, weather and climate, topography and its development, resources, and economic activities. Three hours a week.

World Regional Geography

A one-semester course. Three credit hours. Major world regions and political units. A survey of nations in terms of human activities and conditions as they are related to the earth's physical features. Natural and cultural environments of man are focused on political units. Three hours a week.

Government 1

A one-semester course. Three credit hours. United States Government. Organization and structure of our Federal Government. The Constitution, Supreme Court, Congress, and the role of the Executive Branch. Three hours a week.

History 1

A two-semester course. Three credit hours each semester. The history of Europe, beginning with the Renaissance. The development of the cultural and social institutions from the establishment of the Tudor Monarchy in England to modern times. Three hours a week.

History 2

A two-semester course. Three credit hours each semester. The United States since Colonial times. The development of the social, political, and cultural institutions. Three hours a week.

Mathematics 1—Elementary Mathematical Analysis

A two-semester course. Three credit hours each semester. A study of the abstract nature of mathematics with attention to its structure. Sets, relations and functions; the real number system and its distinguished subsets; polynomials; algebraic fractions; exponents and radicals; simultaneous equations and matrices; inequalities; the algebraic functions; the exponential and logarithmic functions; and the trigonometric functions of real numbers. For liberal arts and business administration transfer students. Three hours a week.

Mathematics 2—Intermediate Mathematical Analysis

A two-semester course. Three credit hours each semester. A modern approach to analytic geometry and the calculus of real numbers with particular emphasis on the mathematical structure through the following topics: The line; equations, graphs and the conic sections as subsets of 2-space; limit theory; continuity; derivatives and antiderivatives of the polynomial functions, the trigonometric and inverse trigonometric functions. For Liberal Arts and Business Administration transfer students. Prerequisite: Mathematics 1. Three hours a week.

Music Appreciation

A one-semester course. Three credit hours. No previous training in music is required. The course is intended for the greater understanding and enjoyment of music. Emphasis on musical style and historical background evident in the works of the great composers. Other compositions from the Baroque period to the present day are studied. Listening assignments. Three hours a week.

Psychology 1

A one-semester course. Three credit hours. Introduction to Psychology. A thorough survey of the more important areas of psychology. Study of behavior including maturation and development, emotions, motivation, learning, intelligence, conflict, psychotherapy and perception. Three hours a week.

Psychology 2

A one-semester course. Three credit hours. Child Psychology. The study of child development from the behavioral aspect. Motor, speech, social, emotional, and play development are emphasized. A research paper on a particular kind of child or on one age level is required. Prerequisite: Psychology 1. Three hours a week.

Sociology 1

A one-semester course. Three credit hours. Principles of Sociology. A study of the social order, and of human behavior as motivated and influenced by group membership, and by the culture. Analysis of structure and functions of the major social institutions. Three hours a week.

Sociology 2

A one-semester course. Three credit hours. Social Problems. The theoretical development of major sociological concepts. Analysis of important sociological studies and reports will be stressed. Field research will be conducted in relation to one or more current social issues. Prerequisite: Sociology 1. Two class hours, and 2 laboratory hours per week.

Spanish 1

A two-semester course. Three credit hours each semester. Elementary Spanish (for students who have not completed two years of secondary school Spanish or the equivalent as determined by a standardized test). An introduction to the basic grammatical patterns of the Spanish language. Speaking, reading, and writing. Three hours a week.

Spanish 2

A two-semester course. Three credit hours each semester. Intermediate Spanish (for students who have completed two or more years of secondary school Spanish, and who achieve an accepted level in a standardized test, or who complete Spanish 1 successfully at Northern Essex). A continued study of Spanish 1. Language skills emphasizing the development of reading skills. Three hours a week.

Speech

A one-semester course. Three credit hours. Instruction and practice in the skills necessary to enable one to communicate orally with understanding, persuasion and appreciation. The course includes organization, presentation, and audience analysis as well as instruction to improve diction, volume and posture. Three hours a week.

Trigonometry

A one-semester course. Three credit hours. A basic course in the trigonometric functions of real numbers, including radian measure, identities, polar coordinates, solutions of triangles and the law of sines and cosines. Three hours a week.

SECRETARIAL COURSES

Introductory Shorthand 1

A one-semester course. Four credit hours. Introduction to theory of Gregg Shorthand. Concentration on rapid reading of shorthand. Development of a legible and fluent shorthand writing style. Dictation from prepared material at 60 to 80 words per minute. Students with a better-than-average grade in high school shorthand may be exempted from this course. Five hours a week.

Introductory Shorthand 2

A one-semester course. Four credit hours. Continuation of the study of the theory of Gregg Shorthand. Refinement of penmanship style. Correlation of shorthand, with the mechanics of English—sentence structure, punctuation, and spelling. Development of the ability to take shorthand dictation on new material at 80 and 100 words per minute. Students with a better than average grade in two or more years of high school shorthand may be exempted from this course upon satisfactory completion of a qualifying examination. Five hours a week.

Intermediate Shorthand and Transcription

A one-semester course. Four credit hours. A review of shorthand theory. Application of rules for writing shorthand. Expansion and growth of shorthand vocabulary in technical and business terminology. Intensive dictation program at the 100-120 word per minute levels on new material.

A continuous course for development and refinement of transcription skills at the typewriter. Integration of the separate skills of shorthand, typewriting and the mechanics of English. Six hours a week.

Advanced Shorthand and Transcription

A one-semester course. Four credit hours. Development of specialized techniques in taking dictation. Intensive and rapid dictation for sustained periods of time. Refinement of dictation at 120-140 words per minute for able students. Reporting shortcuts. Preparation for high-level business employment.

As the course progresses, emphasis upon the production of mailable rates which are consistent with office standards. Introduction to direct dictation at the typewriter. Six hours a week.

Elementary Typewriting

A one-semester course. Three credit hours. Development of the touch system of typewriting. Development of techniques for the growth of speed and accuracy. Use of special symbols on the typewriter. Care of the typewriter. Correct letter set-up, short centering problems, personal and business letters, and simple tabulations. Students with a superior grade of one or more years of high school typewriting may be exempted from the first semester of this course.

They must, however, take an equivalent amount of elective work. Five hours a week.

Intermediate Typewriting

A one-semester course. Three credit hours. Further development of typewriting speed and accuracy. Techniques of erasing and the use of carbons. Preparation of manuscript copy, rough drafts, common kinds of business letters, preparation of typical business forms, and the typing of tabulated reports is stressed. Preparation of stencils and master copies. Students with superior grade of two or more years of high school typewriting may be exempted from this course upon satisfactory completion of a qualifying examination. Five hours a week.

Secretarial Procedures

A one-semester course. Three credit hours. This course touches all phases of the secretarial profession: secretarial typing, correspondence typewriting, use of transmittal services and secretarial filing procedures. A workshop is also used. Three hours a week.

Advanced Typewriting 1

A one-semester course. Two credit hours. This course is for the advanced student. It is a course that will enable the student to maintain typing speed as well as build it in many ways. This course covers advanced transcription problems. Two hours per week.

Advanced Typewriting 2

A one-semester course. Two credit hours. For the advanced student. Rapid dictation and transcription timed. Problems regarding office situations and a more concise look into practical office problems. Two hours per week.

Personal Secretarial Development

A one-semester course. Three credit hours. A continuation of Secretarial Procedures. This course develops the secretarial profession techniques, touching upon receptionist and telephone techniques and secretarial duties incident to travel and meetings, secretarial procedures for preparing business reports, financial and legal duties. Three hours a week.

Legal Stenography

A one-semester course. One credit hour. This course is for the advanced shorthand student. It provides instructional material as well as legal shorthand terminology. Also takes up a background in law and law office procedures and skill building materials in dictation. One hour a week.

Medical Stenography

A one-semester course. One credit hour. This course is for the advanced shorthand student. It stresses medical terminology and shorthand terms. One hour a week.

ELECTRONIC TECHNOLOGY COURSES

Calculus 1

A one-semester course. Four credit hours. Prerequisite: Mathematics 8. Differentiation of exponential logarithmic and trigonometric functions. Integration by parts, by partial fractions, and by trigonometric substitution. Four class hours per week.

Calculus 2

A one-semester course. Four hours credit. Prerequisite: Calculus I. Maxima and minima, independent variables, line integration, multiple integration, solution of ordinary differential equations. Four class hours per week.

Fundamentals of Control System

A one-semester course. Four credit hours. Prerequisites: Networks 1 and Calculus 1. Servomechanisms and their application to control problems. System analysis by block diagrams using transfer function techniques. Characteristics of electro mechanical transducers and their associated circuitry as employed in the measurement of acceleration velocity, displacement, stress, strain, thickness, mass weight frequency, time and level of intensity. Four class hours per week.

Electronics 1

A one-semester course. Five credit hours. Prerequisites: Networks II and Mathematics 8. Electron emission, electron ballistics, characteristics of vacuum tubes, application of network theory, electronic circuits, rectifiers, single stage amplifiers, R-C coupled and tuned amplifiers, and push-pull operation. Four class hours and three laboratory hours per week.

Electronics 2

A one-semester course. Five credit hours. Prerequisite: Electronics 1. This course is a continuation of Electronics 1. Course material covers Feedback Amplifiers, Gas-filled Tubes, Oscillator, Modulation, and Demodulation. An introduction to transistors and their associated circuitry is included. Four class hours and three laboratory hours per week.

Fields and Waves

A one-semester course. Three credit hours. Prerequisites: Physics 3 and Calculus 1. Electricity and magnetism from the field theory

point of view using vector analysis and Maxwell's equations; the static electric field in polarizable and conducting media, static magnetic fields of steady electric currents and ferromagnetic materials, time varying electric and magnetic fields, magnetic induction, electromagnetic waves and energy flow. Three class hours per week.

Graphics 1

A one-semester course. Two credit hours. Communication by graphic representation, orthographic and pictorial. Charts and graphs. Freehand and instrumental multiview drawing, dimensioning, engineering, geometry, pictorial sketching and projection. Four laboratory hours per week.

Graphics 2

A one-semester course. Two credit hours. Prerequisite: Graphics 1. The use of graphics in the solution of problems. Electrical and mechanical layout of electrical apparatus. Wiring and schematic drawings. Four laboratory hours per week.

Mathematics 7

A one-semester course taught within the Electronic Technology Mathematics sequence. Four credit hours. Algebra and plane trigonometry including the following topics: Elementary algebraic operations; fractions, fractional equations, roots, and radicals; functions, co-ordinates and graphs; introduction to trigonometry; identities; determinants; trigonometric formulas; logarithms; solution of triangles; complex numbers; quadratic equations; variation; and equations of higher order. Four hours a week.

Mathematics 8

A one-semester course. Taught within the Electronic Technology Mathematics sequence. Four credit hours. Prerequisite: Mathematics 7. Analytic Geometry. Introduction to rectangular and polar co-ordinates; straight line, circle, conic, parabola, hyperbole, ellipse, trigonometric curves, logarithmic and exponential curves and probability curves, basic rules of differentiation and integration.

Physics 1

(Mathematics 7 taken concurrently) A one-semester course. Four credit hours. The principles of mechanics, including composition and resolution of vectors, statics, moments, rectilinear motion, Newton's second law, motion of a projectile, work and energy, impulse and momentum, circular motion, rotational kinematics and dynamics, elasticity, harmonic motion. Three class hours and three laboratory periods a week.

Physics 2

(Mathematics 8 taken concurrently) A one-semester course. Four credit hours. Prerequisite: Physics 1. Principles of electricity and magnetism, Coulomb's Law, potential, DC circuits; the magnetic field, galvanometers, ammeters, voltmeters, wattmeters, the DC motor, magnetic field of a current and of a moving charge; induced electromotive force; capacitance and inductance, magnetic properties of matter. Three class hours and three laboratory periods a week.

Physics 3

(Calculus 1 taken concurrently) A one-semester course. Four credit hours. Heat, sound, and optics including the following: thermometry, quantity of heat, change of state work and heat; heat transfer, thermal properties of matter, the first and second law of thermodynamics, wave motion, vibrating systems, acoustical phenomena; the nature and propagation of light; reflection and refraction at a single surface, lenses and lens aberration; optical instruments; illumination, color, and polarized light. Three class hours and three laboratory periods per week.

Networks 1

A one-semester course. Four credit hours. Prerequisites: Mathematics 7 and Physics 1. (These may be taken concurrently.) The study of mathematical and physical aspects of electric circuits. Networks are analyzed using steady state analysis techniques. Kirchoff's Laws, Thevenin's Theorem, reciprocity superposition, and duality are covered in detail. All theorems are verified in the laboratory by measurement. Three class hours and three laboratory periods per week.

Networks 2

A one-semester course. Four credit hours. Prerequisites: Networks 1, Mathematics 8. Electrical circuits are examined, using Matrix Algebra, Vector Diagrams, and graphical techniques to supplement phasor notation. Two and four port networks and series and parallel resonance of circuits are studied in the steady state. The laboratory work introduces the student to the use of oscilloscopes and other electrical test equipment. Three class hours and three laboratory periods per week.

Networks 3

A one-semester course. Three credit hours. Prerequisites: Networks 2. The study of the behavior of electrical networks under transient conditions. Step and impulse functions, transfer functions pole-zero plots and the study of Fourier Series are included.

GIFTS AND BEQUESTS

The college welcomes gifts and bequests in support of its programs, projects, and activities. These may include contributions to the Scholarship Fund, the Director's Fund, or for specified purposes as indicated by the donor. The Director of the college will be pleased to sit in conference with anyone interested in benefactions.

All contributions will be put into use after approval by the Board.

Contributions to Northern Essex Community College are eligible for federal income tax deductions up to the maximum provided in the Revenue Code.

IMPORTANT

The provisions of this publication are not to be regarded as a contract between the student and the college. The college reserves the right to change any provision or requirement at any time. The college further reserves the right at any time to ask a student to withdraw when it considers such action to be in the best interests of the college.

